# This Page Is Inserted by IFW Operations and is not a part of the Official Record

# **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

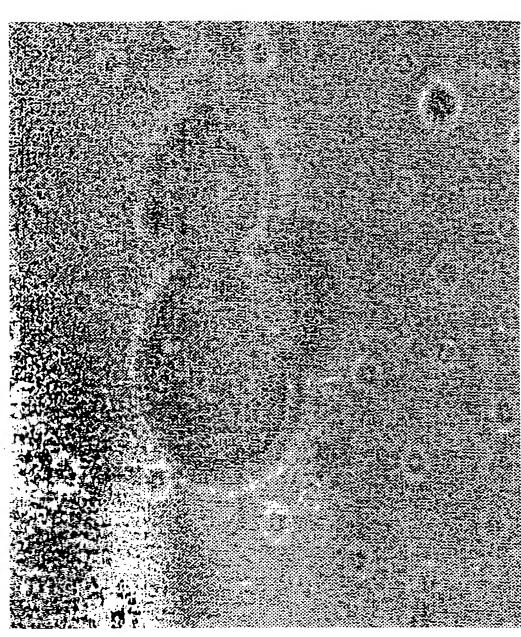
## IMAGES ARE BEST AVAILABLE COPY.

As rescanning documents will not correct images, please do not report the images to the Image Problem Mailbox.



Applicants: Peter Brink, et al.
U.S. Serial No: 10/757,827
Filing Date: January 15, 2004
Title of the Invention: MESENCHYMAL STEM
CELLS AS A VEHICLE FOR ION CHANNEL
TRANSFER Sheet 1 of 20

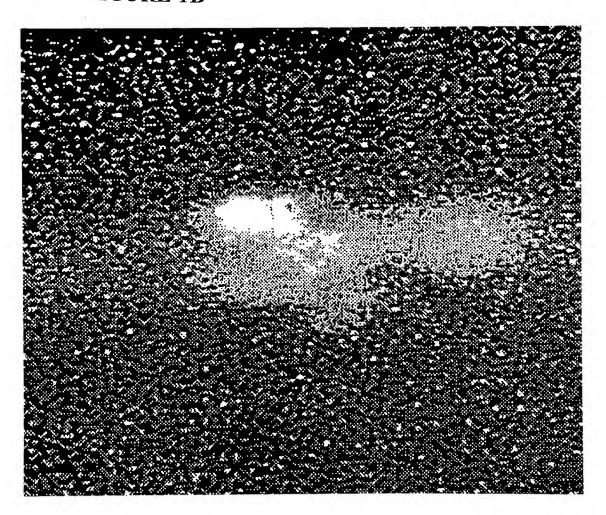
1/20



Applicants: Peter Brink, et al.
U.S. Serial No. 10/757,827
Filing Date: January 15, 2004
Title of the Invention: MESENCHYMAL STEM
CELLS AS A VEHICLE FOR ION CHANNEL
TRANSFER Sheet 2 of 20

*2/20* 

### FIGURE 1B



Applicants: Peter Brink, et al.

U.S. Serial No: 10/757,827

Filing Date: January 15, 2004

Title of the Invention: MESENCHYMAL STEM

CELLS AS A VEHICLE FOR ION CHANNEL

TRANSFER Sheet 3 of 20

### *3/20*

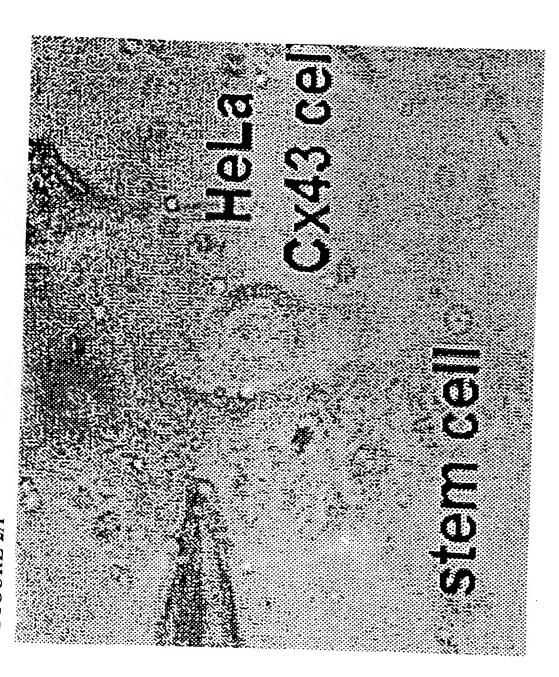
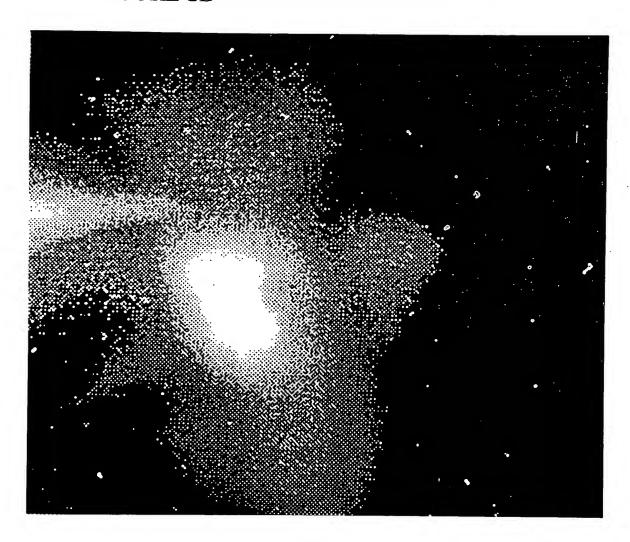


FIGURE 24

Applicants: Peter Brink, et al.
U.S. Serial No: 10/757,827
Filing Date: January 15, 2004
Title of the Invention: MESENCHYMAL STEM
CELLS AS A VEHICLE FOR ION CHANNEL
TRANSFER Sheet 4 of 20

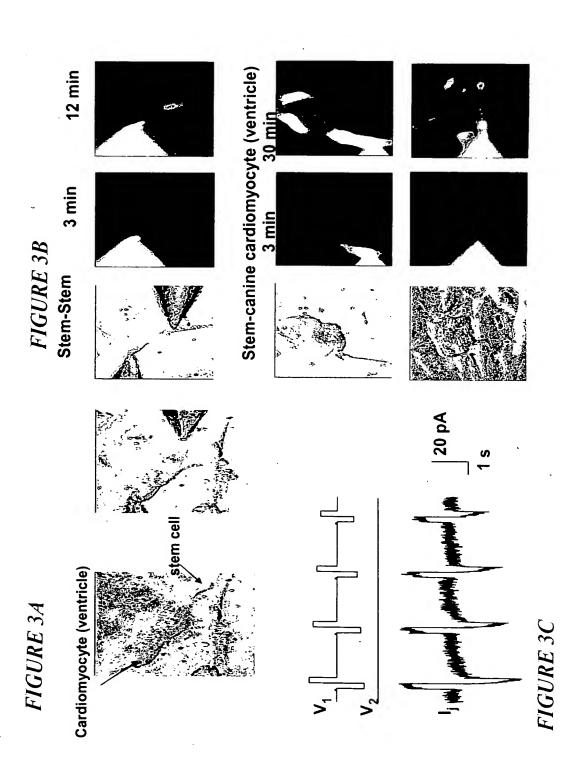
4/20

### FIGURE 2B



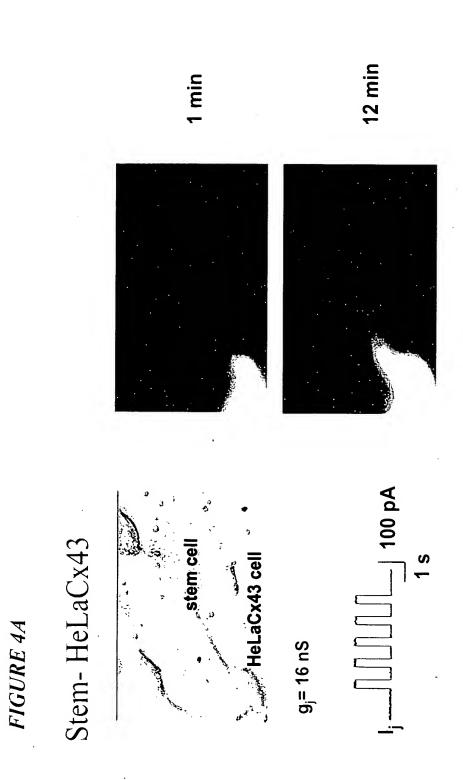
Applicants: Peter Brink, et al.
U.S. Serial No: 10/757,827
Filing Date: January 15, 2004
Title of the Invention: MESENCHYMAL STEM
CELLS AS A VEHICLE FOR ION CHANNEL
TRANSFER Sheet 5 of 20

5/20



Applicants: Peter Brink, et al.
U.S. Serial No: 10/757,827
Filing Date: January 15, 2004
Title of the Invention: MESENCHYMAL STEM
CELLS AS A VEHICLE FOR ION CHANNEL
TRANSFER Sheet 6 of 20

6/20



Applicants: Peter Brink, et al.
U.S. Serial No: 10/757,827
Filing Date: January 15, 2004
Title of the Invention: MESENCHYMAL STEM
CELLS AS A VEHICLE FOR ION CHANNEL
TRANSFER Sheet 7 of 20

7/20

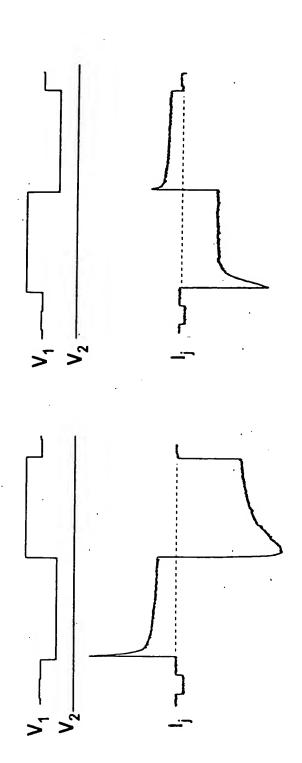


FIGURE 4B

Applicants: Peter Brink, et al.
U.S. Serial No. 10/757,827
Filing Date: January 15, 2004
Title of the Invention: MESENCHYMAL STEM
CELLS AS A VEHICLE FOR ION CHANNEL
TRANSFER Sheet 8 of 20

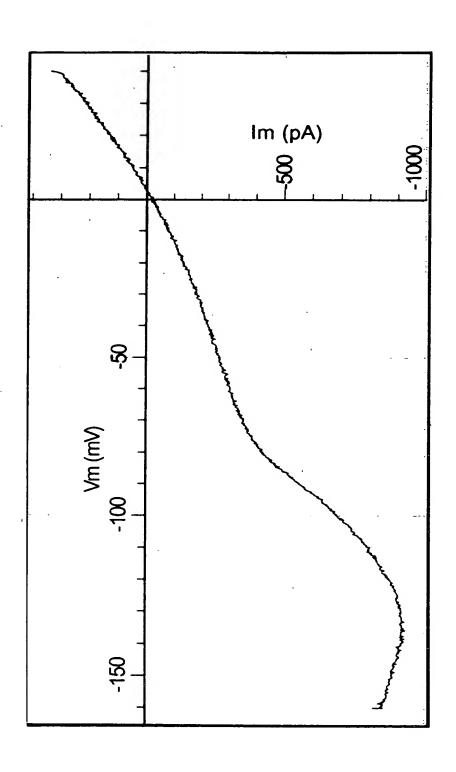
8/20



FIGURE SA

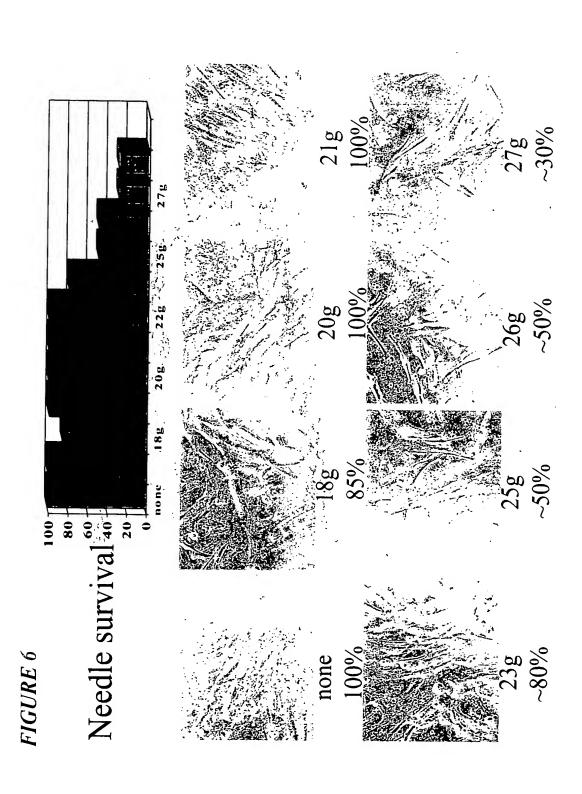
Applicants: Peter Brink, et al.
U.S. Serial No: 10/757,827
Filing Date: January 15, 2004
Title of the Invention: MESENCHYMAL STEM
CELLS AS A VEHICLE FOR ION CHANNEL
TRANSFER Sheet 9 of 20

9/20



Applicants: Peter Brink, et al.
U.S. Serial No: 10/757,827
Filing Date: January 15, 2004
Title of the Invention: MESENCHYMAL STEM
CELLS AS A VEHICLE FOR ION CHANNEL
TRANSFER Sheet 10 of 20

10/20



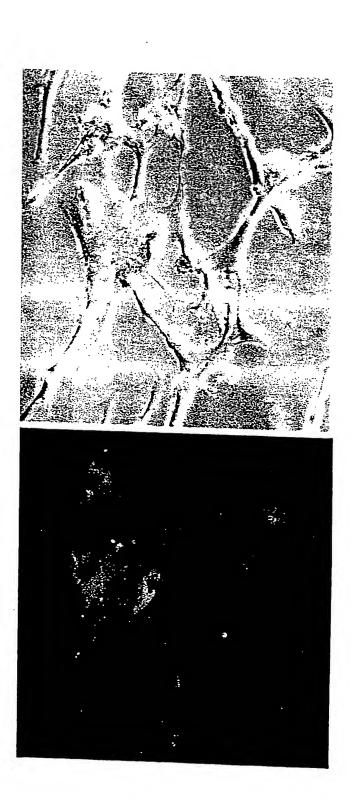
Appucanus: Peier Brink, et al.
U.S. Serial No: 10/757,827
Filing Date: January 15, 2004
Title of the Invention: MESENCHYMAL STEM
CELLS AS A VEHICLE FOR ION CHANNEL
TRANSFER Sheet 11 of 20

11/20

# HMSC cells transiently transfected with mH2-EGFP

FIGURE 7

, «.



Applicants: Peter Brink, et al.
U.S. Serial No: 10/757,827
Filing Date: January 15, 2004
Title of the Invention: MESENCHYMAL STEM
CELLS AS A VEHICLE FOR ION CHANNEL
TRANSFER Sheet 12 of 20

12/20

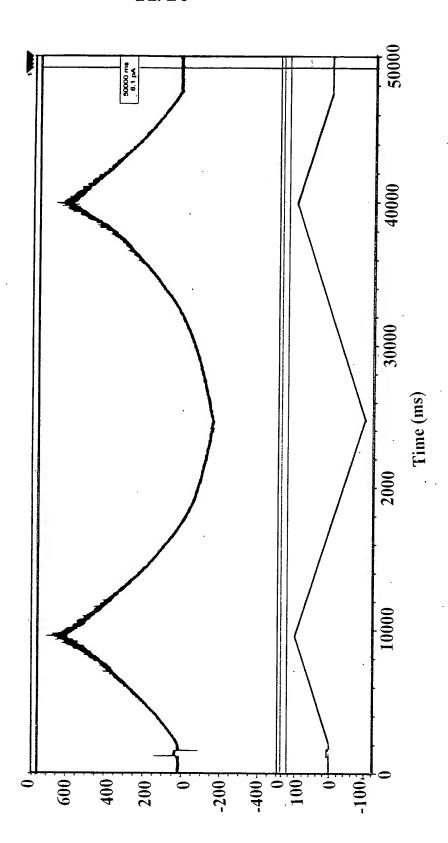


FIGURE 8A

Applicants: Peter Brink, et al.
U.S. Serial No: 10/757,827
Filing Date: January 15, 2004
Title of the Invention: MESENCHYMAL STEM
CELLS AS A VEHICLE FOR ION CHANNEL
TRANSFER Sheet 13 of 20

*13/20* 

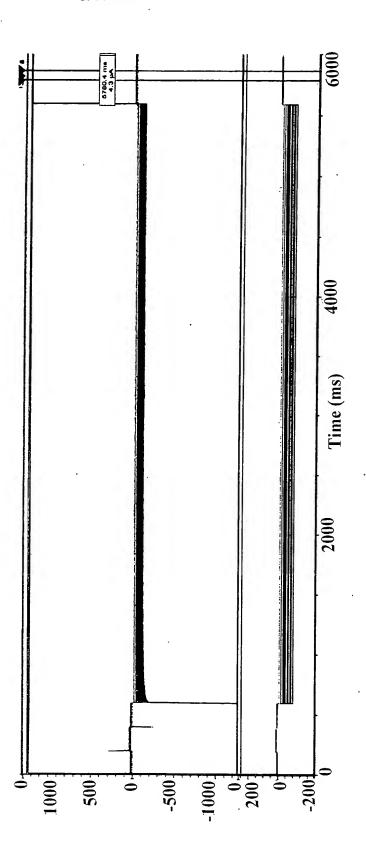


FIGURE 8B

Applicants: Peter Brink, et al.
U.S. Serial No: 10/757,827
Filing Date: January 15, 2004
Title of the Invention: MESENCHYMAL STEM
CELLS AS A VEHICLE FOR ION CHANNEL
TRANSFER Sheet 14 of 20

14/20

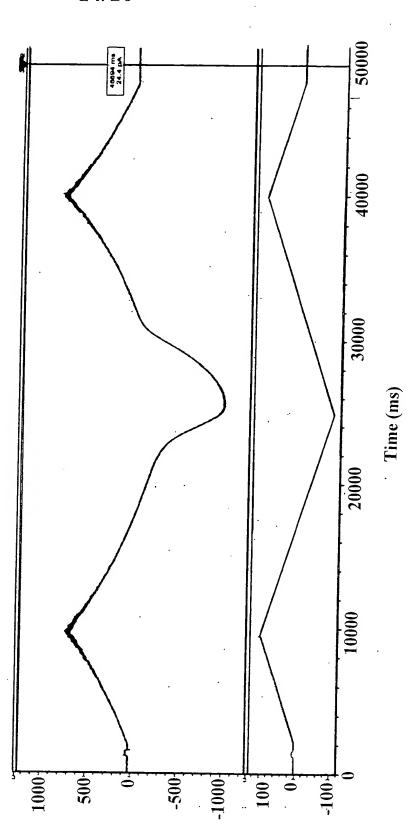


FIGURE 9A

Applicants: Peter Brink, et al.
U.S. Serial No. 10/757,827
Filing Date: January 15, 2004
Title of the Invention: MESENCHYMAL STEM
CELLS AS A VEHICLE FOR ION CHANNEL
TRANSFER Sheet 15 of 20

*15/20* 

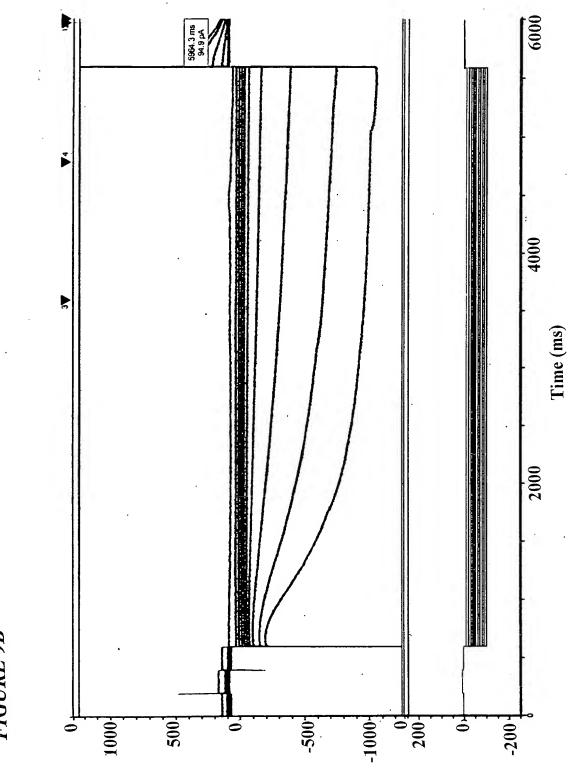


FIGURE 9B

Applicants: Peter Brink, et al.
U.S. Serial No: 10/757,827
Filing Date: January 15, 2004
Title of the Invention: MESENCHYMAL STEM
CELLS AS A VEHICLE FOR ION CHANNEL
TRANSFER Sheet 16 of 20

*16/20* 

Same as above (50 mm/sec)

VT after 1st injection 25 mm/sec

Control

3rd injection

VT termination

FIGURE 10A

Applicants: Peter Brink, et al.
U.S. Serial No: 10/757,827
Filing Date: January 15, 2004
Title of the Invention: MESENCHYMAL STEM
CELLS AS A VEHICLE FOR ION CHANNEL
TRANSFER Sheet 17 of 20

### 17/20

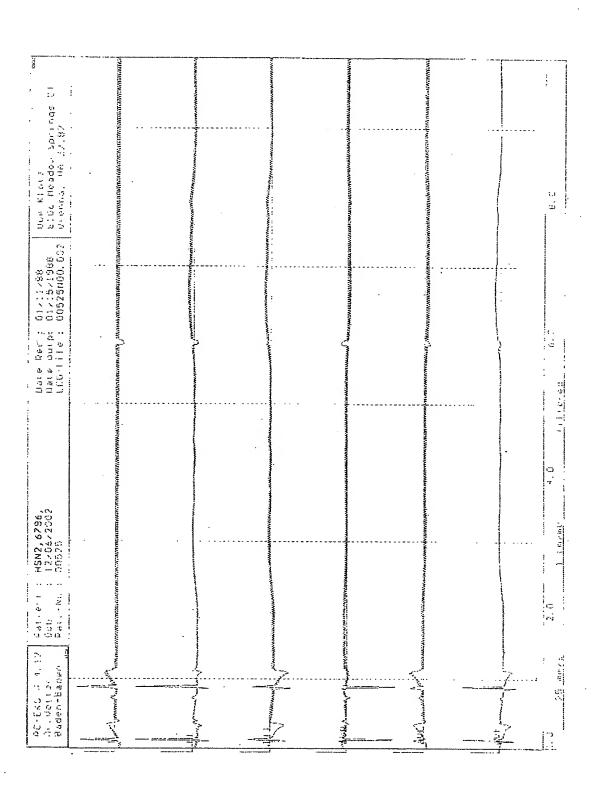


FIGURE 10B

Applicants: Peter Brink, et al.
U.S. Serial No: 10/757,827
Filing Date: January 15, 2004
Title of the Invention: MESENCHYMAL STEM
CELLS AS A VEHICLE FOR ION CHANNEL
TRANSFER Sheet 18 of 20

18/20

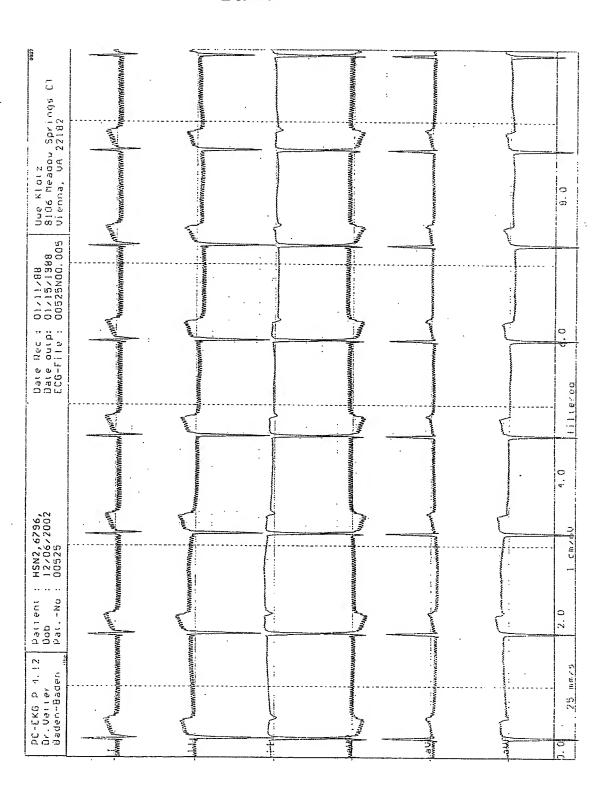


FIGURE 10C

Applicants: Peter Brink, et al.
U.S. Serial No: 10/757,827
Filing Date: January 15, 2004
Title of the Invention: MESENCHYMAL STEM
CELLS AS A VEHICLE FOR ION CHANNEL
TRANSFER Sheet 19 of 20

*19/20* 

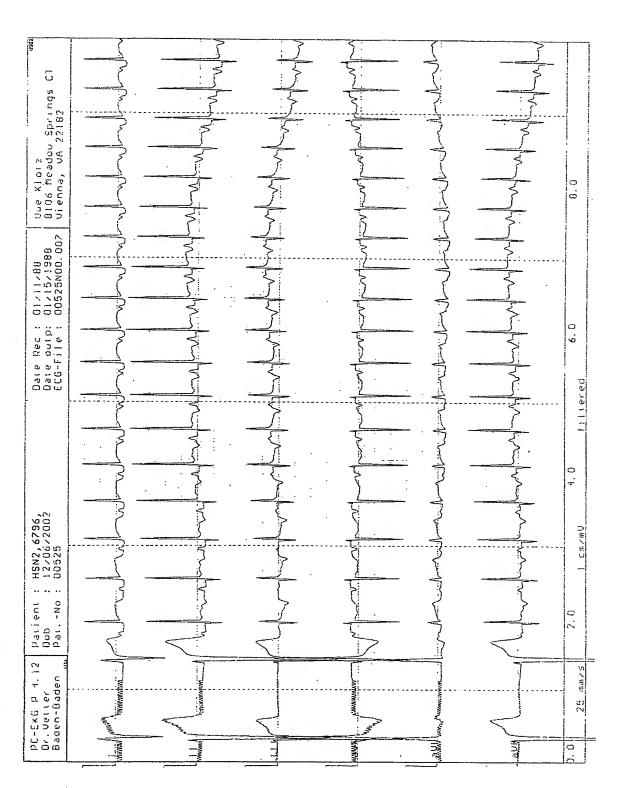


FIGURE 10D

Applicants: Peter Brink, et al.
U.S. Serial No: 10/757,827
Filing Date: January 15, 2004
Title of the Invention: MESENCHYMAL STEM
CELLS AS A VEHICLE FOR ION CHANNEL
TRANSFER Sheet 20 of 20

### *20/20*

### FIGURE 10E

